apice nigris, pube fulvescente vestitis, punctato-striatis, apice obtusis; pedibus testaceis, tarsis fuscis; pectore abdomineque nigris, griseo tomentosis, hoc lateribus fulvo-testaceis; antennis nigris, basi ferrugineis, articulis 5° et 6° flavis. Long. 3–4½ lin. ♂ ♀.

Head depressed between the antenniferous tubercles; face, cheeks, and palpi reddish yellow; crown and occiput shining black. Antennæ black; basal joint, except the apex, reddish yellow; fifth and sixth joints (sometimes also the apex of the fourth) pale yellow. Thorax short, rounded, convex; sides tumid, reddish yellow, clothed with golden pubescence. Scutellum black. Elytra linear, obtuse at the apex, punctate-striate, setose, purplish black or tawny brown, gradually becoming black towards the apex, clothed with a changing tawny pubescence. Breast and abdomen dusky, clothed with griseous pile; abdomen brownish testaceous on the sides. Legs reddish yellow; tarsi dusky.

Pará and Lower Amazons.

[To be continued.]

XXXIV.—*Additional Observations on* Ziphiorrhynchus.

By Dr. H. Burmeister.

[*In a Letter, from Buenos Ayres, to Dr. J. E. Gray.*]

[Plate VI.]

My dear Friend,—I received your letter some days ago, and set to work as soon as possible to send you further notes on *Ziphiorrhynchus* (the outer form of which was described in the 'Annals & Mag. Nat. Hist.' for February 1866, vol. xvii. p. 94, Pl. III.). There is no doubt that the animal is a species of *Epiodon*, the whole of the characters being the same as those given by you in your 'Synopsis.' My name *Ziphiorrhynchus* must therefore fall, there being no reason for retaining it; but the species appears to me to be different, as far as I can judge from the drawing you have sent me. You must now study my figure, and compare it with the others, to find out the specific characters. I can do nothing here without a work concerning the species of *Epiodon*.

The figures which I send you show the skull from the side, rather less than one-fourth of the natural size, the whole skull, from the apex of the lower jaw to the end of the occipital condyle, being 75 centim. long, and each branch of the lower jaw 59 centim. The lower jaw is somewhat longer than the upper, with two round apertures (Pl. VI. fig. 3), in which are contained two large teeth. Fig. 4 shows one of these teeth, of the natural size, and fig. 5 one of the smaller teeth, which are situated in the narrow channel running backward from the alveoli of the larger teeth, as shown in fig. 3. The upper jaw has a similar but smaller channel, which is indicated, in fig. 1, at the side of the upper jaw near *b*, as a dotted line (……). In this figure, *b* indicates the maxillary bone, and *a* the intermaxillary.

In the whole longitudinal line between the two intermaxillary bones there is a deep channel, beginning at the top of the upper jaw, as shown in fig. 3. The vomer is situated in the bottom of this channel; and behind the vomer there is a strong cylindrical cartilage, which goes from the top of the jaw to the nasal opening, where it unites with the high septum of the vomer between the two apertures, as shown in fig. 2.

The intermaxillary bones are enlarged behind, and somewhat excavated, rising into a high protuberance on the forehead, the right maxillary bone being much larger than the left, as you may see in my drawing (fig. 2). In the middle of this protuberance are situated the nasal bones (fig. 2 *o o*), which are also unequal, the right being stronger than the left, and forming a large and thick *promontorium* between the intermaxillary bones.

On the outside of the maxillary bone (*b*) is situated the frontal (*d*), forming an arch over the eye on each side, and ascending like a small narrow band at the hinder margin of the maxillary bone to the top of the protuberance in the highest part of the skull. Behind these comes the large parietal bone (*c*) in the middle of the cranium, and on the sides the temporal bones (*f*), having on the underside the ear-bone or *os petrosum* (*g*). The posterior margin of the temporal is united with the occipital bone (*h*). The zygomatic bone is very curious; it forms a thin cylindrical arch, united in front of the eye with the frontal, but not reaching the temporal bone behind.

The skull is 34 centim. in breadth at the broadest part, in the middle of the superciliary arch; and the protuberance is elevated 20 centim. above the horizontal part of the upper jaw in the same region of the skull. I hope you will understand all thoroughly by examining my drawings. (Plate VI.)

The other parts of the skeleton closely resemble the figures given by Vrolik in his account of *Hyperoodon* (in the Transactions of the Academy of Haarlem, 1848, vol. v. p. 1). I have this very valuable description of the *Hyperoodon*, the only scientific work on whales in my library, except yours in the 'Voyage of the Erebus and Terror.' The neck has the same construction, and has also seven vertebræ, the first four being united into one piece, and the other three separate. The arches of these three vertebræ are open above, as is also the arch of the first dorsal, which is very small and united on the left side with the arch of the second. This is the first vertebra with a spinous process, but it is also somewhat open on the right side of the arch. The third dorsal vertebra has the arch entirely closed, and is much larger than the second. From this the vertebræ increase to the end of the lumbar part of the column, where the vertebræ are largest, each of them being 12 centim. long. The number of the dorsal vertebræ is ten, and that of the lumbar twelve. Of the ten pairs of ribs, six are united with the sternum, and four free. The sternum has precisely the same form as that of *Hyperoodon* figured by Vrolik, and this is the case also with the hyoid bone. The forms of the arm-bones are also exactly the same, except that the upper margin of the scapula is somewhat larger, and the carpal bones are not cartilaginous, but ossified.

The twelve lumbar vertebræ are followed by twenty caudals, the first eleven having spinous processes on the underside. The same region of the tail has also the smallest spinous processes of the dorsal side. The last three vertebræ are very small, forming merely round osseous corpuscles; and the two preceding these last three are each perforated perpendicularly by two foramina on each side of the central line of the body.

This is all that I can tell you of the general construction of the skeleton, and I hope you will find enough to make out the characters of the species.

[The skull shows that this species is distinct from *Epiodon Desmarestii* of the Mediterranean; and it should be called *Epiodon cryptodon*, Burmeister.—J. E. Gray.]

I am very curious to see your work on the Edentata, as you know that I had the good fortune to be the first describer of some new species of this family, such as *Dasypus hispidus* and *Praopus hirsutus*, from Guayaquil, and the new *Chlamyphorus*. I hope you know my descriptions in the 'Abhandl. der Hallisch. Naturf. Gesellsch.' I have had for some time a living *Dasypus conurus*, and have observed his curious habits: he walks, as you say, with only the tips of his claws touching the ground. His skeleton is most allied to that of the gigantic *Glyptodon*, which he also resembles in his general figure. We have many specimens in the collection here.

EXPLANATION OF PLATE VI.

Fig. 1 shows the skull from the right side.
Fig. 2, the nasal region, with the protuberance from the front.
Fig. 3, the apex of the upper and lower jaws.
Fig. 4, a large tooth, natural size.
Fig. 5, a small tooth, natural size.

In figs. 1 & 2, *a* marks the intermaxilla; *b*, the maxilla; *c*, the parietal; *d*, the frontal; *f*, the temporal; *g*, the os petrosum; *h*, the occipital bone, and *o*, the nasal bones.